



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,966	01/29/2004	Takehiro Yoshida	12706/9	2351
23838	7590	10/04/2005	EXAMINER	
KENYON & KENYON 1500 K STREET NW SUITE 700 WASHINGTON, DC 20005			CONSILVIO, MARK J	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/765,966

Applicant(s)

YOSHIDA, TAKEHIRO

Examiner

Mark Consilvio

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-7 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 25 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings were received on 7/25/2005. These drawings are acceptable.

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashi et al. (JP Patent Publication No. 08-043739) in view of Ohguri (US Patent No. 5,600,620).

With respect to claim 1, Takashi discloses a spectroscope that resolves a light beam (311) into separated light beams having various wavelengths, and selects and extracts a separated light beam having an arbitrary wavelength from among these separated light beams, comprising variable width slits (10-12) that limit a transmission area of each of the separated light beams. Though Takashi is silent to the details of how the spectrum is limited, Ohguri teaches masks (100a-110d) that limit in a spectrum direction and in a direction perpendicular to said spectrum

Art Unit: 2872

direction (figs. 4A-4D). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Takashi and Ohguri to provide masks to increase the signal-to-noise ratio allowing for greater spectral and spatial resolution.

With respect to claim 3, while Takashi implies an adjustment device that adjusts the relative positions of each of said masks, neither reference teaches the adjustment device also adjusts each of the separated light beams that propagate towards these masks. However, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Takashi and Ohguri to an adjustment device that adjusts the relative positions of each of said masks and also adjusts each of the separated light beams that propagate towards these masks. One of ordinary skill in the art would have been motivated to do this to allow coordination between position of the reflected light beams and position of their respective apertures to filter the desired spectral region.

With respect to claim 4, the combination of Takashi and Ohguri teaches a reflection preventing means provided on a shielding surface (124) on one of said masks on which said separated light beams are impinged.

With respect to claim 5, Takashi and Rhodes do not expressly disclose a shielding surface on one or both of said masks that is impinged by said separated light beams is slanted so as to avoid facing an optical device adjacent to said shielding surface. However, one of ordinary skill would immediately recognize that the shield surface of the masks could be slanted. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Takashi and Rhodes to provide a shielding surface on one or both of said masks that is impinged by said separated light beams is slanted so as to avoid facing an optical

Art Unit: 2872

device adjacent to said shielding surface. One of ordinary skill in the art would have been motivated to do this to keep light from reflecting directly back through the optical system

With respect to claim 6, Takashi discloses lenses (16-18) disposed in opposition are adjacent to said masks; and surfaces of said lenses that are opposite to said masks have a convex shape that is convex towards these masks.

With respect to claim 7, Takashi discloses a confocal scanning microscope that resolves a light beam from an observation object (19) into separated light beams of various wavelengths, selects a separated light beam having an arbitrary wavelength from among these separated light beams, and receives the selected separated light beam at a photodetector (13-15), comprising: the spectroscopy being provided between the light paths from said observation object towards said photodetector.

Claims 2 and 7/2/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashi et al. (JP Patent Publication No. 08-043739) in view of Ohguri (US Patent No. 5,600,620) and in further view of Engelhardt et al. (PCT Publication No. WO99/00211).

With respect to claim 2, Takashi discloses a small aperture (part of 8) that focuses said light beam before resolution. While Takashi and Ohguri do not expressly disclose that the aperture is square, this is known in the art. Engelhardt teaches the use of such a square aperture (8) in a confocal arrangement where a direction of one of diagonals of said small aperture is parallel to said spectrum direction (fig. 2). Absent a showing of criticality, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify

Art Unit: 2872

the teachings of Takashi and Rhodes to provide a square-shaped aperture to create the desired spectrum pattern allowing only focused light from the optical system to be detected.

With respect to claim 7, Takashi discloses a confocal scanning microscope that resolves a light beam from an observation object (19) into separated light beams of various wavelengths, selects a separated light beam having an arbitrary wavelength from among these separated light beams, and receives the selected separated light beam at a photodetector (13-15), comprising: the spectroscopy being provided between the light paths from said observation object towards said photodetector.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). It is noted that the amendment modified the previously conditional (intended use) language of claim 1 to the currently functional limitation. Hence, the masks, that were previously limited to being capable of the recited function, must now be disposed in a system which performs that function.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2872

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

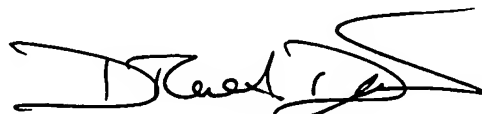
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Consilvio
USPTO Patent Examiner
Jefferson, 3C21 AU-2872
(571) 272-2453



DREW A. DUNN
SUPERVISORY PATENT EXAMINER